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ABSTRACT

This study, part of a larger research effort, focuses attention on the relationship between school context and the process of learning to teach reflectively. It is noted that it requires leadership within the schools to nurture reflection and to encourage the development of more sophisticated forms of reflection as teachers acquire knowledge. Contexts which encourage reflective practice are those in which relevant information to inform reflection is available, and in which structures exist that allow for the exchange of such information. This project explores the possibility of schools' nurturing reflective practice among novice and experienced teachers as well as administrators. The study is based on interviews with 75 teachers on their perceptions of themselves and in interactions with others in their school setting, and describes how teachers perceive dimensions of school context, focusing mainly on the qualities of leadership in the school. Data from the study support the need for reflective problem solving on the part of teachers and provide a glimpse of those school structures that might enable teachers to think together and more effectively. (JD)

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School Contexts that Encourage Reflection: Teachers' Perceptions

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This study, part of a larger research effort, is designed to focus attention on a neglected aspect of reflective practice: the relationship between school context and the process of learning to teach. This relationship implies a particular set of assumptions about the nature of reflection. The first is that learning to teach is enhanced by engaging in reflection-in and -on the actions of teaching (Schon, 1987) and this has implications for student learning. The second assumption is that reflection does not happen by accident. It requires leadership within schools to nurture reflection in novice teachers and to encourage the development of more sophisticated forms of reflection as teachers acquire knowledge through formal and informal study and through experience. A third, related, assumption is that contexts which encourage reflective practice are those in which relevant information to inform reflection is available, and in which structures exist that allow for the exchange of such information. A final assumption is that contexts which encourage reflection are those which support question asking and the careful search for answers as both individual and collaborative efforts. In addition to seeing learning to teach as an individual process, this view of reflection implies that individual teachers learn in a context that includes others and also the particular environment of their school setting.

These assumptions provide the basis for an on-going action research project to explore the possibility of schools' nurturing reflective practice among novice and experienced teachers as well as administrators. The project, conceptualized according to the view of action research articulated by Argyris, Putnam and Smith (1985), has a team of university-based educators working with school personnel in schools which represent urban, near-urban and suburban contexts. Seven schools were included in the first phase of the project, which was designated a planning year. Each school was expected to form a leadership team composed of administrators and teachers. The teams were to identify problematic areas within the school that could serve as focal problems for collaborative study and action. Four of the schools were successful in forming teams; three were not. In the course of facilitating and monitoring the team building experiences of the seven schools, seventy-five novice and experienced teachers were interviewed to gain their

perceptions of these school factors that encourage or inhibit their working together collaboratively for professional development.

The study's focus on school context represents a dimension of teachers' learning about which little is known. Considerations of the importance of school context and its influence on teachers' learning have received scant attention in research on how and what teachers learn about their professional practice. Despite the arguments advanced by Lortie (1975) and Goodlad (1983), suggesting that school contexts offer an overwhelming array of experiences which affect teachers' learning, it is only recently that this point is even beginning to receive attention. Much of this attention may be attributable to the current interest in reflection as an aspect of teachers' learning and the potential this notion holds for expanding the frame within which to consider the process of how teachers learn to teach and of how they learn more about their own teaching. Although, as Cinnamond and Zimpher (in press) point out, much of the research on reflection done to date focuses on describing programs for teaching the skills and process of reflection (Beyer, 1984; Korthagen, 1985; Gore, 1987; Zeichner & Liston, 1987), there is another focus regarding reflection that is surfacing for consideration. That focus is on what needs to be done within school contexts to support teachers' efforts in reflection. Such a question is consistent with what is being called the second wave of school reform, a growing educational change movement in which the importance of school context is acknowledged. Lieberman (1988) aptly describes this second wave's focus on context as a concern for the development of more professional culture within schools, a culture based in "new sets of relationships between and among all members of the school community".

However, the prevailing trend of current literature on learning to teach, both at pre-service and in-service levels, remains focused on how teachers as individuals acquire and use knowledge about teaching. Those factors within schools that promote the necessity for new learning and that affect teachers' opportunities to learn, in other words factors comprising the school context, tend to be left out of the research frame of most studies. The effect of omitting these dimensions from investigations of teachers' learning processes is to imply that teachers'

learning is individualistic and occurs as a result of personal history and individual inclination, without consideration of the school setting or of those persons with whom the teacher interacts within the school.

This context free nature of much of the research on teacher learning is not surprising given that it tends to be construed within a cognitive information processing paradigm. For example, researchers have investigated the role of content knowledge in learning to teach (Shulman, 1987), have contrasted expert teachers' pedagogical knowledge with that of novices (Carter, Sabers, Cushing, Binnegar & Berliner, 1987), and have examined functional and dysfunctional pedagogical routines (Leinhardt & Greeno, 1986). The important contributions made by such studies is in no way undermined by pointing out that the influence of cultural and social factors on teachers' learning and practice is not addressed within their scope. Rather, the focus has been on the function of the individual teacher as a repository of knowledge and an executrix of decisions based on that knowledge.

The emphasis on teachers as individual agents acquiring and applying knowledge is evident also in the prevailing modes of pre-service and in-service education. In the case of pre-service teacher education, knowledge is parcelled out in discrete courses, with psychological and social information about students separated from content area methods courses or from pedagogical theory courses (Ginsburg & Clift, in press). The effect of such separation is to obviate considerations of the influence of particular school contexts in shaping how teachers select and use the information from their coursework, and to ignore prospects for knowledge about teaching being collaboratively generated to address issues specific to particular school settings. Even in student teaching, beyond recognizing the importance of the cooperating teacher in shaping the student's views of practice, the impact of the larger context of the school setting is barely acknowledged.

The influence of school context is similarly unrecognized in staff development programming. The proliferation of packaged programs for in-service training, and the assumptions embedded in these programs, that there are topics of general interest to all teachers

(such as classroom management or student learning styles) and that knowledge about these topics can be universally applied, suggest the failure of such programs to consider the importance of school context. Although the landmark DESSI study (Crandall, 1982) concludes that successful staff development requires adaptation of programs to suit the needs of particular schools, such adaptation remains an all too infrequent occurence.

As an aspect of reflective practice that is not yet well understood, the influence of school context on teachers' learning lends itself to study by descriptive means. This study, based as it is in interview data and relying on teachers' perceptions of themselves and their interactions with others in their school setting, is an effort to describe how teachers perceive dimensions of school context. The analysis of these interviews and interpretations of the contributions they make to understanding the influence of aspects of school context on reflective practice and on learning to teach (or learning more about teaching) provide baseline data on how much opportunity for reflection currently exists in the schools under study. The descriptive data also raises questions about what opportunities for reflection exist in other schools.

Procedures

These procedures should be viewed as they occur within the context of a broader research project which utilizes participant observation methods (Spradley, 1980), including formal and informal interviews, formal and informal observations of classrooms and school meetings, and the collection of school documents which relate to teachers' work conditions and collaborative structures within the schools. This use of multiple methods is intended to increase the number of perspectives, thus reducing observer bias (Gorden, 1980: Patton, 1980). Glaser and Strauss (1967) propose that researchers use a portion of the study to discover the important questions, and in this study, the data from these initial interviews have been used to inform subsequent procedures. An important part of the process during the planning year was the collection of interview data from each school, and as suggested by Patton (1980), schools were promised

descriptive summaries of the interviews which could then be used in later stages of the project for goal setting or as confirmation of the existence of collaborative work behaviors.

Interview Guide

Following the identification of school context as an important aspect of learning to teach, a semi-structured interview guide was designed to allow objective questioning for comparable data across subjects (Bogdan & Biklen, 1982), while still permitting a thorough understanding of answers (Borg & Gall, 1983) and the possibility of the formation of new questions or probes for clarification (Gorden, 1980). Questions were drawn from the literature on school climate (See Little, 1982) and from researchers' experiential knowledge of practice. The interview guide was designed to meet several specifications: (1) Interviews had to be limited to about 50 minutes, the length of a conference period; (2) Broad questions were needed in order to allow the discovery of the relative importance of various aspects, i.e., describe what you do here (Moleneaux & Lane, 1982); and (3) Some experience questions were needed in order to obtain a rich description of each teacher's story, i.e., describe an incident concerning your subject matter in which you felt well prepared (Spradley, 1979). Pilot testing aided the clarification of certain questions and the addition of possible probes for examples and descriptions (Gorden, 1980).

Schools

The seven schools included in this study were all participants in the "Reflective Inquiry Teacher Education" (RITE) program, and many of the teachers had taken a part in the program by having student observers in their classes. A total of 75 teachers were interviewed during a two month period, including 45 secondary and 30 elementary teachers. In most cases, interviewees were volunteers who were willing to talk about their teaching experiences, but in a few instances, principals arranged for teachers to participate. Subjects were assured of complete confidentiality and anonymity (Borg & Gall, 1983), and they were promised a summary of the results by school. The location and sizes of the seven schools are summarized in Figure 1.

Figure 1
School Descriptions

	Location	Size
Woods Elementary	Urban	600
Firestone Elementary	Near-Urban	600
Pine Grove Elementary	Suburban	650
Broadstreet Middle School	Urban	2200
Andrews Middle School	Urban	1800
Eastview High School	Urban	2000
Jefferson High School	Urban	2000

Interviews

Although teachers in the seven schools were familiar with RITE and had been associated with the university for several years, there was concern that in some schools teachers would be suspicious and nervous if interviews were conducted by university faculty members. On the other hand, teachers were more likely to talk freely to preservice teachers, and might be more willing to share their experiences with their younger observers (Gorden, 1980). For these reasons, interviews were conducted by 18 undergraduate students who were enrolled in the RITE program in lieu of a separate project.[1] The student interviewers were selected on the basis of their demonstrated competence in two earlier projects requiring the use of interviewing skills. In addition to the training for these earlier projects, interviewers also received in two additional training sessions during which they participated in mock interviews and watched experienced interviewers at work.

Each interview was audiotaped in order to reduce the researcher's tendency to unconsciously select data and to be certain to capture the teacher's own words and descriptions of work and

[1]Thanks to RITE students Rebecca Adkins, Barrie Black, Henry Bludau, Janet Collins, Shelly Day, Vicky Dodd, Debbie Engel, Natalie Gentry, Ken Hahn, Mary Humphries, Padma Iyer, Pam Jones, Shelly Levine, O'Dell Mills, Harriet Raindl, Andy Sexton, Debbie Todd and Jan Yurasek.

learning (Borg & Gall, 1983). Interviews were conducted in various places in the schools including classrooms, lounges, libraries, and workrooms, as researchers were reminded of the oftentimes difficult work conditions of public school teachers who lack the prestige of private offices and quiet retreats from students. Due to the sometimes noisy conditions of rooms, some tapes were of such poor quality that transcription was impossible.

Since the interviewers were not experienced researchers, they often did not probe for depth or clarity, and they limited their questions to the written interview guide. However, since all the interviews are on audiotape, the information that was collected is accurate, accessible, and often insightful.

Data Analysis

In the process of data summary, 60% of the interviews were transcribed verbatim, and these data were used to begin the search for regularities and patterns (Goetz & LeCompte, 1984) within each of the five main categories derived from the literature on school climate. A constant comparison method (Glaser & Strauss, 1967) was used to sort responses in each category. Interview responses were coded in these five major categories:

> School leadership - including official and unofficial school leaders and desirable leadership qualities.
>
> Communication patterns within schools - including those with whom the teachers had daily or weekly conversations.
>
> Individual resources for problem solving - including people, formal instructional experiences, and personal resources based on prior experience.
>
> Perceived strengths and learning needs - including student background, pedagogy, and subject matter.
>
> Perceptions of school environment - including the verbal and non-verbal communication by others, physical plant, and use of time within schools.

While there was concern that the richness of the interviews not be lost, it was also felt that data reduction and summarization was an essential step in the process of finding meaning and of noting differences within and between school (Miles & Huberman, 1984). Once a set of categories had been formed, a second researcher coded five interview transcriptions, and the ensuing

discussions resulted in the addition or clarification of many response choices. A single data summary sheet containing all of the categories and spaces to check responses was prepared, and these summaries were used to check on the frequency and distribution of phenomena (Becker, 1970; Miles & Huberman, 1984). Using these summary sheets, the remaining 40% of the interviews were summarized. Teachers' responses were then displayed on matrices by school and by category.[2] In order to accurately capture teachers' ideas, care was taken to record noteworthy quotes and their location on the tape; these quotes were gathered and arranged into categories similar to those on the summary sheet.

Interview Findings

Using the five major categories listed above, interview data will be discussed both by tables, showing frequencies and percentages of responses by school or by school level, and by direct quotations of teachers, which illustrate important patterns in the data. When studying the tables, one should keep in mind that the numbers and percentages represent the number of comments made by teachers in answer to open-ended questions.

Leadership

To understand teacher's perceptions of school leadership, teachers were asked about the official and the unofficial leaders in the schol, and the qualities that made people leaders. Although we did not specifically ask about problems with leadership, all voluntary statements concerning problems with leadership were noted. The purpose of these questions was to gather baseline information about teachers' perceptions of the people and the desirable qualities that constituted the leadership in each school.

School Leaders

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[2] We are indebted to Marlene Johnson and Denise Van Zandt for their assistance in this phase of data analysis.

As might be expected, principals and assistant aprincipals (in buildings with assistants) were identified as the official leaders. Our interviews also revealed that while some teachers might label the principal as a leader, their voicetone or qualifying statements indicated that the label was the only indicator of a particular principal's ability to lead. Comments such as these did not occur in all schools but they tended to occur more in secondary schools than in elementary schools.

> A title doesn't necessarily make someone a leader. (Pine Grove, novice)

> What do you mean by leader? Do you mean tyrant? I would call him the designated tyrant. I have yet to meet too many people here that I would classify as leaders. (Jefferson, experienced)

Unofficial leaders were less easily labeled by a designated category, but teachers who were in designated leadership positions (such a department chair, cluster or team leader) were mentioned more often as leaders than those who were not in such positions. This held for all schools, and for both novices and experienced teachers - with exception of one school. Table 1 presents a school-by-school description of teachers' identifications of unofficial leadership.

As Table 1 demonstrates, there is some variation between schools with regard to unofficial leadership. The middle school teachers reported more unofficial leaders than did elementary or senior high school teachers. Also, in Woods Elementary the novice teachers reported proportionately more leaders than did the experienced teachers, while in Firestone Elementary the novices did not identify any unofficial leaders. Differences between schools can be further noted in the teachers' direct comments. In one elementary school, the experienced teachers acknowledged unofficial leadership, but for unknown reasons, declined to dicuss the subject and refused to name specific teachers. In one of the senior high schools, a novice teacher noted that there was no leadership at all. Teachers' comments on leadership within the school suggest their present understanding of leadership.

Table 1
Unofficial Leadership in Project Schools

	# of comments about Administrators		# of comments about Teachers	
Woods El.				
Novice (6)	1		7	
Experienced (5)	1		5	
Fire El.				
Novice (2)	0		0	
Experienced (5)	0		5	
Pine Grove El.				
Novice (4)	0		3	
Experienced (8)	0		10	
	# Comments	% of total comments	# comments	% of total comments
Total Elementary (30)				
Novice (12)	1	9%	10	91%
Experienced (18)	1	9%	20	91%
Broadstreet M.S.				
Novice (3)	2		4	
Experienced (8)	0		16	
Andrews M.S.				
Novice (0)	--		--	
Experienced (14)	0		26	
Eastview S.H.S.				
Novice (3)	0		4	
Experienced (7)	0		6	
Jefferson S.H.S.				
Novice (2)	0		2	
Experienced (8)	0		6	
	# comments	% of total	# comments	% of total
Total Secondary (45)				
Novice (8)	2	17%	10	83%
Experienced (37)	0	0%	54	100%

> Administrators try to do what they can as leaders, but they have problems because they have a lot of reports due. They have to see everything from their perspective as an administrator, and what all that entails and it doesn't leave a whole lot of time for real leadership within the faculty. They're managers more than leaders (Broadstreet, experienced)

> The overall faculty feels like the administration is not supporting us. We cannot get teachers to agree to follow certain rules. Faculty and then administration - when the two are together, then the situation is pretty bad. (Andrews, experienced)

Leadership Qualities

Teachers were asked about the qualities that leaders in the schools exhibited, and their comments were grouped into six categories: a) evidence of caring; b) positive personality characteristics; c) concern for interpersonal relationships; d) knowledge of running the school; e) action orientation; f) other qualities not related to the above. These categories were then combined into two larger categories shown in Table 2. Categories A, B, and C shared characteristics of interpersonal or people related qualities; categories D, E, and F shared characteristics of expertise in business-like or organizational skills.

Elementary and secondary novice teachers mentioned both personal and organizational qualities equally, but secondary novices mentioned twice as many positive organizational qualities than interpersonal qualities. While personal qualities in a leader were important to both elementary and secondary experienced teachers, elementary teachers--all women --mentioned the interpersonal dimensions of leadership more than secondary teachers. Elementary teachers made (proportionately) almost twice as many comments about leadership than secondary teachers, and qualities related to working within the school organization were noted more often by secondary teachers. These comments illustrate the interpersonal qualities valued by elementary teachers.

> Well, she's very humanistic. She's strict when it needs to be and yet if there is a problem, she understands you also. She cares, she really cares, and she puts herself into everything. She is very positive and she pushes for you - let's do a good job - and yet she understands if there is a problem and she helps you out. (Woods, novice)

Table 2
Positive Leadership Qualities

	Interpersonal		Organizational	
	# comments	% of total comments	# comments	% of total comments
Woods El.				
Novice (6)	8	44%	10	56%
Experienced (5)	9	75%	3	25%
Firestone El.				
Novice (2)	3	50%	3	50%
Experienced (5)	10	38%	16	62%
Pine Grove El.				
Novice (4)	4	20%	16	80%
Experienced (8)	29	66%	15	34%
Total Elementary (30)				
Novice (12)	15	34%	29	66%
Experienced (18)	48	59%	34	41%
Broadstreet M.S.				
Novice (3)	3	33%	6	67%
Experienced (8)	12	48%	13	52%
Andrews M.S.				
Novice (0)	-		-	
Experienced (14)	13	42%	18	58%
Eastview S.H.S.				
Novice (3)	2	29%	5	71%
Experienced (7)	5	50%	5	50%
Jefferson S.H.S.				
Novice (2)	0		2	100%
Experienced (8)	6	50%	6	50%
Total Secondary (45)				
Novice (8)	5	27%	13	72%
Experienced (37)	36	46%	42	54%

> Her specific qualities are she is very caring towards the children and her most important thing, I would believe, is teachers first and then the children. She is very supportive of the teachers and their attitudes and she supports her teachers 100 percent. (Firestone, experienced)
>
> She is very, very caring. She knows most of these children by name. She really cares. She is in the building, floating, looking, asking questions, wanting to know. (Pine Groves, experienced)

Although teachers were not specifically asked about problems with school leadership, several comments were volunteered. The data presented in Table 3 show that most spontaneous negative comments occurred in senior high schools. Experienced senior high teachers complained less than novices, but both sets of complaints related more often to school organizational characteristics of leadership than to interpersonal qualities.

Table 3
Problems with School Leadership

	Interpersonal		Organizational	
	# comments	% of total comments	# comments	% of total comments
Total Elementary				
Novice (12)	0		0	
Experienced (18)	1		1	
Total Middle School				
Novice (3)	0		0	
Experienced (22)	3	50%	3	50%
Total High School				
Novice (5)	3	30%	7	70&
Experienced (15)	7	35%	13	65%

The results of teachers' perceptions of school leadership in these seven schools can be summarized in four working hypotheses which will be discussed in more detail in the final section:

1. While there is consensus on who the official leaders are, there is considerably less consensus on the unofficial leadership operating within schools.

2. Open acknowledgement of unofficial leadership varies among schools, as does novices' reported access to that knowledge.

3. Experienced teachers, especially elementary teachers, make more favorable comments about the interpersonal dimensions of leadership than do novices.

4. Senior high school teachers spontaneously mention more problems with school leadership, particularly those dimensions related to working within the school organization.

School Environments

Teachers were asked to discuss their feelings about school as a workplace, specifically those things that made them feel valued or not valued. These responses were categorized as interpersonal (comments from and interactions with administrators, colleagues, and students); instructional (curriculum, teacher autonomy, student learning, time available to teach, flexibility of the teaching schedule, and teacher/student ratio); schoolwide discipline; and other, noninstructional issues such as paperwork, meetings, physical plant, and relationships of parents to the learning process. Table 4 summarizes teachers' perceptions of their schools' strengths.

As with leadership data, the interpersonal dimension of school interaction has a strong impact on teachers' positive perceptions of the school environment. When this interpersonal dimension is analyzed more closely, there is a variation among schools concerning the source and the receiver of positive interpersonal interactions. Novice teachers at Woods Elementary reported more positive examples of interactions than did experienced teachers and all of these interactions were with administrators. Conversely, experienced teachers at Firestone reported more interactions, which were evenly divided between administrators and teacher colleagues. Novices and experienced teachers at Pine Grove reported the most positive interactions of all schools and placed students' comments and actions equally with those of colleagues and administrators.

In the secondary schools, positive aspects of one's own instruction in the classroom plus non-instructional aspects of the school contributed to teachers' positive perceptions of their school environment. There is some suggestion that the middle school teachers have more positive

Table 4
Strengths of School Environment

	Interpersonal		Instructional		Schoolwide Discipline		Other	
	#	%	#	%	#	%	#	%
Woods El								
Novice (6)	6	100%	0		0		0	
Experienced (5)	5	71%	2	29%	0		0	
Firestone El.								
Novice (2)	1	25%	1	25%	0		2	50%
Experienced (5)	12	86%	0		0		0	14%
Pine Grove El.								
Novice (4)	7	100%	0		0		0	
Experienced (8)	16	80%	1	5%	1	5%	2	10%
Total Elementary (30)								
Novice (12)	14	82%	1	6%	0		2	12%
Experienced (18)	33	80%	3	7%	1	2%	4	10%
Broadstreet M.S.								
Novice (3)	6	100%	0		0		0	
Experienced (8)	8	100%	0		0		0	
Andrews M.S.								
Novice (0)	-		-		-		-	
Experienced (14)	22	92%	1	4%	0		2	8%
Eastview S.H.S.								
Novice (3)	3	100%	0		0		0	
Experienced (7)	8	100%	0		0		0	
Jefferson S.H.S.								
Novice (2)	1	100%	0		0		0	
Experienced (8)	8	80%	2	20%	0		0	
Total Secondary (45)								
Novice (8)	10	100%	0		0		0	
Experienced (37)	45	74%	7	11%	0		9	15%

interactions with their administrators and colleagues than do senior high school teachers. Over 40% of the comments in the middle school referred to positive interactions with the administration, and over 20% referred to positive interactions with colleagues. In both instances, these percentages were reduced by 10% in the senior high schools.

Negative aspects of the school environments are summarized in Table 5. Differences among elementary schools can be seen in the total numbers of negative comments and the teachers' identifications of problematic areas.

Novice teachers at two of the elementary schools made proportionately more negative comments, while at one elementary school the experienced teachers identified more problems. Comments about non-teaching kinds of activities differed by school. For example, at Woods, several teachers commented on the problems of dealing with transient students; at Firestone, several teachers wished for a separate room where they could allow children to work at noisy tasks; and at Pine Grove, teachers complained about meetings and paperwork. While negative comments about the school environment were relatively rare at elementary schools compared with secondary schools, the following comment illustrates many teachers' feelings about the evaluation of teaching and about the need for positive communication among teachers.

> We have spent so much time on outward things. If I could change some people's attitudes, administrators's attitudes, on what really makes a good teacher. Texas has taken all these little pieces, and they have said if you could get all the puzzle pieces together you have a good teacher. But there is something in the cohesiveness of all those pieces - the inner part of a person, the excellence of a person - there is no way to manifest it. So it is not appreciated. It is not valued. So what I would do for this school is, we would all go on a retreat. I would put us in an isolated area and we would spend a week together talking and communicating and getting to the place where if we didn't agree we at least tolerated people's differences and approaches. (Pine Groves, experienced)

Table 5
Weaknesses of School Environment

	Interpersonal		Instructional		Schoolwide Discipline		Non-teaching	
	#	%	#	%	#	%	#	%
Woods El. (18 negative comments)								
Novice	1	20%	1	20	1	10%	6	70%
Experienced (5)	2	25%	5	25%	1	13%	1	38%
Firestone El. (9 negative comments)								
Novice (2)	1	20%	4	80%	0		0	
Experienced (5)	1	25%	1	25%	0		2	50%
Pine Grove El. (26 negative comments)								
Novice (4)	2	29%	3	43%	0		2	29%
Experienced (8)	9	47%	5	26%	0		5	26%
Total Elementary Negative Comments: 53								
Novice (12)	4	19%	8	38%	1	5%	8	38%
Experienced (18)	12	38%	11	34%	1	3%	8	25%
Broadstreet M.S. (24 negative comments)								
Novice (3)	2	29%	2	29%	1	14%	2	29%
Experienced (8)	9	53%	6	35%	1	6%	1	6%
Andrews M.S. (35 negative comments)								
Novice (0)	-		-		-		-	
Experienced (14)	19	54%	3	9%	8	23%	5	14%
Eastview S.H.S. (35 negative comments)								
Novice (3)	3	30%	1	10%	2	20%	4	40%
Experienced (7)	8	32%	6	24%	4	16%	7	28%
Jefferson S.H.S. (38 negative comments)								
Novice (2)	2	100%						
Experienced	15	42%	8	22%	2	6%	11	31%
Total Secondary Negative Comments: 132								
Novice (8)	7	37%	3	16%	3	16%	6	32%
Experienced (37)	51	45%	23	20%	15	13%	24	21%

Generally the secondary school teachers were more disturbed about their environment then the elementary teachers. One middle school and one senior high school seemed most distressed by interpersonal relationships, particularly relationships with administrators and colleagues.

> I had a confrontation with a teacher who would just check up on me. She'd come over and just walk in my room, look through my lesson plans, look through my grade book , just kind of nose around my room. (Eastview, novice)

> I really don't work with people that much. I come in and my time is for my students, and I try not to get involved in too much outside activities. (Eastview, experienced)

> I sort of stay away from making any comment. I don't even like to observe [colleagues] because that's not in my job description. They don't appreciate it if I criticize or make a suggestion. They're just my peers. (Andrews, experienced)

> I feel valued on occasion. You have to be satisfied with something within because noone's going to walk around and pat you on the back. Most of the rewards come from the students. (Andrews, experienced)

An important factor in the school environment is the students, and while elementary teachers said little about their students, secondary teachers spoke out about discipline problems and the need to motivate students to study and learn. They spoke about how students have changed and about the need to know about the lives of their students.

> Times have changed. You can't talk or communicate with a student the way you could five years ago or even ten years ago. You're dealing with a different kid, different ideas about things. You have to continue to educate yourself - it's a constant thing. (Andrews, experienced)

> I can feel a sense of not belonging or something. They don't have enough drive in them. At time, I feel like they feel that what they're doing is not important to anyone, not even to themselves ... (Broadstreet, experienced)

The secondary school teachers that reported the fewest problems were in a middle school that had been organized into clusters - a specified group of students assigned the same subset of academic teachers. The cluster teachers met together during one school period daily. During this "cluster period" students were in elective classes from which they could be excused to meet with all of their academic teachers if necessary. Teachers were also assigned one planning period in addition to the "cluster period".

> I like it because you get a little interaction with your other teachers for discipline... and you get input from other teachers on how they handle the students. (Broadstreet, experienced)

> The cluster concept is just a concept of bringing the teachers and the students a little closer together in dealing with each other. (Broadstreet, experienced)

> I love the cluster period. They [experienced teachers] were real opposed to the cluster system because they taught for many, many years and just thought it was another burden put on them. I have seen my cluster members progress through the school year and really enjoy the cluster and really see a benefit. (Broadstreet, novice)

From teachers' comments on the positive and negative aspects of their school environment, we have developed three more working hypotheses, two of which relate to those identified in the section on leadership.

1. The interpersonal dimensions of teachers' work in school deserve more careful attention than have been studied in the past, with particular regard to the nature of collegial interactions and interactions between teachers and administrators.

2. There is variation among teachers' comments about meetings and other non-teaching activities. The nature of meetings needs more careful attention. Are there factors within meetings that increase teachers' feelings of frustration and are there other factors that contribute to a sense of well-being and productivity?

3. There are fewer positive and negative comments about classroom factors within the school environment and no one mentioned curriculum. Is this an aritfact of the interview protocol or are teachers less inclined to talk about themselves and their classes as contributing to a sense of ebing valued or not valued?

Communication

We asked the teachers to identify and describe the people with whom they come in contact with daily, weekly, or seldom. The data recorded in Table 6 suggests that elementary schools and secondary schools differ in the number of contacts teachers have with colleagues, and that secondary teachers report slightly more daily contact with administrators due to the handling of discipline problems.

Table 6
Teacher' Reports of Percentage of Daily Communication in Schools

	Administrators	Support Staff	Colleagues	Parents	Other
Elementary					
Novice (12)	23%	13%	57%	3%	3%
Experienced (18)	11%	19%	51%	2%	17%
Secondary					
Novice (8)	27%	19%	38%	0	15%
Experienced (37)	28%	24%	40%	1%	7%

In two of the elementary schools, teachers work in pods by grade level, and their physical proximity encourages almost daily collaboration, while in Broadstreet Middle School, the cluster system serves to bring teachers together on a daily basis. The quality and quantity of these interactions with colleagues is illustrated by teachers' descriptions.

> We do that [meet with colleagues] on a daily basis here because of the situation in our room and because of the building. The teachers here in this room are always exchanging ideas and sharing with each other. That goes on almost on a daily basis. (Firestone, experienced)

> We interact and compare notes all day to see that we are current and work together to team teach. (Pine Groves, experienced)

> We discuss behaviors of the students that we have, discuss their learning problems, arrange to have meetings with their parents, discuss ways to coordinate our teaching efforts so that they can be transferred from one area to another. (Broadstreet, experienced)

While elementary teachers reported more communication with colleagues than secondary teachers, there are still notable examples from the interviews which show teachers would like to have even more communication.

> We need to be in contact more with the grade levels on either side of us ... but there is not time. (Pine Groves, experienced)

> Somehow [there has to be] an easier way of problem solving as opposed to [when] you're in the bathroom and you see someone for five minutes and you have a problem and you want to talk about it. Some other form of communication where you're not walking down the hall and it's a hit or miss kind of thing where you

> really need to solve a problem but everybody's so busy. Even though you're in teams, things come up. You need help right then. (Pine Groves, novice)
>
> It would be very helpful ... to get ideas from other teachers, maybe teachers with more experience than myself (Broadstreet, experienced).

In Table 7 differences among elementary schools are highlighted. Novice teachers at Woods reported more daily contacts with administrators than did novices at the other two schools, while novices at Pine Grove reported the most daily contacts with colleagues.

Table 7
Variation Among Elementary School Teachers' Reports of Daily Communication

	Adminis-trators	Support Staff	Colleagues	Parents	Other
Woods El.					
Novice (6)	44%	12%	44%	0	0
Experienced (5)	14%	28%	58%	0	0
Firestone El.					
Novice (2)	0	0	75%	0	25%
Experienced (5)	11%	21%	42%	5%	21%
Pine Grove El.					
Novice (4)	0	20%	70&	10%	0
Experienced (8)	10%	14%	57%	0	19%

From the data on communication, we formulated three working hypotheses:

1. The size and structure of the elementary schools in our project facilitates more ongoing interaction among colleegeus than the size and structure of the secondary schools.

2. Novice teachers are more likely to communicate with colleagues than are experienced teachers.

3. The administrator's role in providing instructional assistance is likely to be different for elementary and secondary schools. Teachers may need to play a greater assistance role in the secondary schools - where there are also the weakest instances of collegial communication.

Learning Needs

We asked the teachers to describe incidents in their teaching in which they felt well prepared and other incidents in which they felt unprepared. We also asked them to identify one thing that would help them become better teachers today and in the future. Therefore, responses in this section are biased toward learning needs, with the greatest numbers of responses listed in that area. Both strengths and learning needs were categorized as pedagogical (preparation, management, instructional methods, evaluation); content related (own subject, new subject, computer technology); related to student backgrounds (language, culture, home lives); or personal (patience, effort, self assessment).

Identified Strengths

Teachers' reported strengths are summarized in Table 8. Novice elementary teachers reported the greatest strengths in pedagogy, although experienced elementary teachers reported greater strengths in pedagogy than in content. When these categories are examined in more detail, most of the perceived strength in pedagogy relates to planning. All other perceived expertise in content related to their knowledge of their own material.

Table 8
Perceived Strengths

	Pedagogy		Content		Students		Personal		Other	
	#	%	#	%	#	%	#	%	#	%
Total Elementary										
Novice (12)	10	59%	3	18%	0		0		4	23%
Experienced (18)	13	39%	9	27%	0		2	6%	9	27%
Total Secondary										
Novice (8)	4	31%	5	38%	1	8%	0		3	23%
Experienced (37)	23	32%	26	36%	1	1%	3	4%	20	27%

Table 9 summarizes teachers' reported learning needs. Novice secondary teachers reported needing to learn more about content than the other teachers, but in all cases, pedagogical needs were mentioned more frequently than any others.

Table 9
Perceived Learning Needs

	Pedagogy		Content		Students		Personal		Other	
	#	%	#	%	#	%	#	%	#	%
Total Elementary										
Novice (12)	14	40%	4	12%	4	12%	2	6%	11	31%
Experienced (18)	16	37%	7	16%	2	5%	2	5%	16	37%
Total Secondary										
Novice (8)	10	42%	6	25%	4	17%	1	4%	3	12%
Experienced (37)	45	49%	15	16%	14	15%	3	3%	15	16%

In Table 10, the category of pedagogy is summarized in more detail, and clearly, instructional methods are not the primary concern of any group except the novice elementary teachers. Student evaluation and assessment were even less frequently mentioned concerns.

Table 10
Pedagogical Learning Needs

	Motivation/ Discipline		Instruction/ Ideas & Methods		Evaluation/ Assessment	
Total Elementary						
Novice (12)	7	50%	6	43%	3	19%
Experienced (18)	12	75%	3	19%	1	16%
Total Secondary						
Novice (8)	8	80%	1	10%	1	10%
Experienced (37)	35	78%	4	9%	6	13%

When we looked at these data for each individual school, we found that management was a large concern for the novices at Woods Elementary, but not as much for the experienced teachers. Conversely, the experienced teachers at Pine Grove expressed learning needs regarding motivation and discipline, but the novices did not express similar needs. Teachers in the secondary schools reported needing to learn more about motivation and discipline than their elementary colleagues.

in each school, these concerns represented over 70% of the secondary teachers' specified learning needs.

The data reported in the section on learning needs supported three final working hypotheses:

1. The content for reflection will likely focus on issues of management and discipline in early attempts to focus on the relationships between teachers and students' learning.

2. Novices will be more likely to respond positively to opportunities for help seeking than experienced teachers.

3. Teachers and administrators will have to negotiate new roles and social norms before administrators can be effective in helping teachers improve individual instruction.

Resources for Problem Solving

Teachers' reported resources for working through problems in teaching are reported in Table 11. These data are categorized by help seeking from other people; help seeking from more formal resources such as courses, workshops, or print materials; and help seeking from their own past experience or personal reflections. Most of teachers' resources were from formal sources, and within that category, print resources and workshops provided the majority of information. The people who were most frequently mentioned as resources were colleagues; administrators were mentioned as resources for solving discipline problems, but were mentioned much less frequently than colleagues.

There is variation among schools with regard to help seeking from colleagues. Experienced teachers at Woods Elementary and at Eastview Senior High School reported few incidents of asking for a great deal of help from colleagues. Novice teachers at Broadstreet Middle School, where teachers are organized into clusters, reported asking for help from colleagues more than novices at any of the other schools. At two of the elementary schools and at two secondary schools, novices sought a greater proportion of help from colleagues than did experienced teachers,

Table 11
Resources for Problem Solving

	People		Formal		Personal		Other	
	#	%	#	%	#	%	#	%
Woods El.								
Novice (6)	4	33%	6	50%	2	17%	0	
Experienced (5)	1	16%	5	55%	2	22%	1	16%
Firestone El.								
Novice (2)	2	22%	5	55%	1	16%	1	16%
Experienced (5)	5	45%	2	18%	3	27%	1	16%
Pine Grove El.								
Novice (4)	3	27%	4	36%	4	36%	0	
Experienced (8)	3	23%	7	54%	3	23%	0	
Total Elementary (30)								
Novice (12)	9	28%	15	47%	7	22%	1	3%
Experienced (18)	9	27%	14	42%	8	24%	2	6%
Broadstreet M.S.								
Novice (3)	3	50%	3	50%	0		0	
Experienced (8)	7	32%	7	32%	6	27%	2	9%
Andrews M.S.								
Novice (0)	-		-		-		-	
Experienced (14)	9	29%	10	32%	10	32%	2	6%
Eastview S.H.S.								
Novice (3)	5	38%	3	21%	3	21%	3	21%
Experienced (7)	2	13%	11	73%	2	13%	0	
Jefferson S.H.S.								
Novice (2)	1	20%	3	60%	1	20%	0	
Experienced (8)	7	32%	8	36%	5	23%	2	9%
Total Secondary (45)								
Novice (8)	9	36%	9	36%	4	16%	3	12%
Experienced (37)	25	28%	36	40%	23	25%	6	7%

but at both elementary and secondary levels, nearly a quarter of the experienced teachers reported that they rely on personal experience or inner resources for problem solving.

Summary and Conclusions

What does this study mean for those who would encourage teachers to reflect on their own teaching practice? The first implication is that all of the teachers in our sample identified areas in which they would like more information. That is, the teachers in our seven schools are experiencing problems that they have not been able to solve given the present conditions within the school. If our first assumption is correct - that learning to teach is enhanced by engaging in reflection, then both experienced and novice teachers would be able to supply problematic areas for discussion and for communal problem solving. However, if our second assumption is correct - that school leadership is required to create structures that encourage reflection - our data suggest that the definition of instructional leadership needs to be reexamined and refocused on the leader's ability to interact with adults.

Our data confirm other studies of work in schools with regard to cultural norms of isolation, but found evidence that these norms can be changed by structural arrangements such as clustering students with a group of teachers who share a common time to discuss students and curriculum. Other structural arrangements that support time for reflection include regularly scheduled team meetings in which an agenda is focused on students and solving problems related to students' needs.

A second implication of our analysis is that to create such arrangements requires that the school administration work with teachers to decide on how best to create time for reflection within the school day and then to create accountability structures that encourage reflection, not griping. But institutional structures are not sufficient. Building administrators must attend to their own images within school buildings. The administrators discussed in this study were not viewed as people to whom one takes an instructional problem, but in many cases, administrators were

feared--or ignored. Neither of these conditions fosters an atmosphere in which teachers feel free to identify problems or to take risks to solve those problems.

Enabling teachers to interact professionally and to work together to improve learning conditions for students requires an administrator who meets the interpersonal needs expressed in this study and who relates to teachers on a personal, but professional level. This means that teachers and administrators will have to negotiate new roles and establish new social and collegial norms before administrators can be effective in helping teachers improve individual instruction An isolated, remote administrator who assumes all is well (or at least ok) cannot provide the positive encouraging support teachers need as they learn to work together. We believe that a new definition of leadership needs to be explored--the leader's ability to encourage adults to work with other adults to improve the learning experiences of students.

This means that all meetings with the faculty--whether in large or small groups--must serve the needs of teachers who want to improve their ability to work with students. Meetings should support collegial discussions of concerns and should enable teachers to support one another as they struggle through individual or communal problems in teaching. Meetings that only meet the needs of administrators who want to get a report out or transmit information should be abandoned.

Forging a new definition of leadership will be difficult since administrative training has not typically dealt with adult interpersonal and professional relationships. Neither has it attended to the differential learning needs of novice and experienced teachers. Our data support the conclusion that different teachers have very different learning needs and that these needs may limit the content available for reflection. An instructional leader must empower teachers to engage in continual study through action research, synthesis of existing literature, and observation and analysis of other teachers. Then, leaders must assist teachers through the process of transforming the knowledge gained through such inquiry into something that is practically useful for their own students and classrooms.

If our third assumption is correct--that the context for reflection must support question asking and the search for information--then the third implication of this study affects school district administration as well as the building administration. While some problems might be addressed in district-wide "in-service" workships, many problems need to be addressed "right now", and others are unique to particular schools or units within schools. This means that school budgets and district policies regarding professional development should be flexible enough to meet emergent needs throughout the school year. Substitutes can be hired to permit teachers to meet together; consultants from other schools, from universities, and from support centers can be called in as needed to address issues that are specific to a particular schjool. More importantly, teachers can spend time in one another's classrooms, in libraries, or in other schools learning more about problems that they have identified as important to the teachers and the students in their buildings.

In summary, our data support the need for reflective problem solving and provide a glimpse of those school structures that might enable teachers to think together more effectively. But our data also support the importance of proceeding with caution. To encourage teachers to discuss their learning needs and to seek help requires a supportive atmosphere that does not exist in many schools. Not only are supportive institutional structures necessary, but also interpersonal relationships must exist which allow teachers to admit to having problems without fear of punishment. At present, the elementary schools and middle schools in our sample have come the farthest in promoting reflective problem solving. The senior high schools have formidable barriers to collegial interaction and represent the biggest challenge to those who are encouraging reflective practice.

Modification of the status quo cannot proceed without an understanding of the current conditions within individual schools. This understanding must be shared among administrators and teachers, not merely evaluated by outside researchers and consultants. As work within our project and similar projects continues, there must be careful attention to the possibility that a

change in status quo is not desirable. In other words, reflective practice must be in the process of any change effort.

References

Argyris, C., Putnam, R., & Smith, D. (1985). Action science. San Francisco: Jossey-Bass.

Becker, H.S. (1970). Problems of inference and proof in participant observation. In N.K. Denzin, Sociological Methods: A Sourcebook. Chicago: Aldine.

Beyer, L. (1984). Field experiences, ideology and the development of critical reflectivity. Journal of Teacher Education, 35(3), 36-41.

Bogdan, R.C. and Biklen, S.K. (1982). Qualitative research for education: An introduction to theory and methods. Boston: Allyn and Bacon.

Borg, W.R. and Gall, M.D. (1983). Educational research. 4th ed. New York: Longman.

Borko, H. & Livingston, C. (1988, April). Expert and novice teachers' mathematics instruction: Planning teaching and post-lesson reflections. Paper presented to the American Educational Research Association, New Orleans, Louisiana.

Carter, K., Sabers, D., Cushing, K., Pinnegar, S., & Berliner, D. (1987). Processing and using information about students: A study of expert, novice, and postulant teachers. Teaching and Teacher Education, 3(2), 147-157.

Cinnamond, J. & Zimpher, N. (in press). Reflectivity as a function of community. In r. Clift, W. Houston, & M. Pugash. (Eds.). Reflective Practice: An Examination of Issues and Examples. New York: Teachers College Press.

Crandall, D. (1982). People, policies, and practices. Vols. 1-10. Andover, MA.: The Network.

Ginsburg, M. & Clift, R. (in press). Hide and seek: Researching the hidden curriculum of preservice teacher education. In W. Houston, M. Haberman, & J. Sikula. (Eds.). Handbook of Research on Teacher Education. New York: Macmillan.

Glaser, B. and Strauss, A. (1967). The discovery of grounded theory. Chicago: Aldine.

Goetz, J.P. and LeCompte, M.D. (1984). Ethnography and qualitative design in educational research. Orlando: Academic Press.

Goodlad, J. (1983). A place called school. New York: McGraw-Hill.

Gorden, R.L. (1980). Interviewing strategy techniques and tactics. Homewood, IL: Dorsey Press.

Gore, J. (1987). Reflecting on reflective teaching. Journal of Teacher Education, 38(2),38-39.

Korthagen, F. (1985). Reflective teaching and preservice teacher education in the Netherlands. Journal of Teacher Education, 36(5), 11-15.

Lieberman, A. (Ed.). (1988). Building a professional culture in schools. New York: Teachers College Press.

Leinhardt, G. & Greeno, J. (1986). The cognitive skill of teaching. Journal of Educational Psychology, 77, 241-247.

Little, J.W. (1982, Fall). Norms of collegiality and experimentation: Workplace conditions of school success. American Educational Research Journal, 19(3), 325-340).

Lortie, D. (1975). Schoolteacher. Chicago: University of Chicago Press.

Miles, M.B. and Huberman, A.M. (1984). Qualitative data analysis: A sourcebook of new methods. Beverly Hills: Sage.

Molyneaux, D. and Lane, V.W. (1982). Effective interviewing techniques and analysis. Boston: Allyn and Bacon.

Patton, M.Q. (1980). Qualitative evaluation methods. Beverly Hills: Sage.

Shulman, L. (1987). Knowledge and teaching: Foundations of the new reform. Harvard Educational Review, 57(1), 1-22.

Spradley, J.P. (1979). The ethnographic interview. New York: Holt, Rinehart, Winston.

Spradley, J.P. (1980). Participant observation. New York: Holt, Rinehart, Winston.

Zeichner, K. & Liston, D. (1987). Teaching student teachers to reflect. Harvard Educational Review, 57(1), 23-48.